## **Balancing Redox Reactions**

Balance the following redox reactions

1. 
$$SO_2(g) + HNO_2(aq) \rightarrow H_2SO_4(aq) + NO(g)$$

2. Al (s) + 
$$H_2SO_4$$
 (aq)  $\rightarrow Al_2(SO_4)_3$  (aq) +  $H_2$  (g)

3. 
$$Au^{3+}(aq) + I^{-}(aq) \rightarrow Au(s) + I_{2}(s)$$

4. 
$$S^{2-}(aq) + I_2(s) \rightarrow SO_4^{2-}(aq) + I^{-}(aq)$$

5. 
$$H_2O_2(aq) + CIO_4^-(aq) \rightarrow O_2(g) + CIO_2^-(aq)$$

6. 
$$Br_2(aq) + OH^-(aq) \rightarrow Br^-(aq) + BrO_3^-(aq)$$

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7. 
$$Mn(s) + HNO_3(aq) \rightarrow Mn^{2+}(aq) + NO_2(g)$$

8. 
$$I_2(s) + OCI^-(aq) \rightarrow IO_3^-(aq) + CI^-(aq)$$

9. 
$$Cr_2O_7^{2-}$$
 (aq) + HNO<sub>2</sub> (aq)  $\rightarrow$   $Cr^{3+}$  (aq) + NO<sub>3</sub><sup>-</sup> (aq)

$$10.CrO_4^{2-}$$
 (aq) +  $S^{2-}$  (aq)  $\rightarrow Cr(OH)_3$  (s) + S (s)